Heavy equipment transporters stage at the Port of Klaipeda, Lithuania, in preparation to load a combined arms battalion of heavy tracked vehicles on June 12, 2017. The 32nd Composite Truck Company transported equipment across Lithuania in support of Operation Saber Strike, a multinational exercise that included a combined arms battalion emergency deployment readiness exercise and a port-to-fort movement within 72 hours. (Photo by Capt. Stephen I. DuCharme)

Posturing Sustainment Forces for Rotations in Europe

By injecting four logistics considerations into the predeployment planning process, the 32nd Composite Truck Company was able to rapidly deploy and provide transportation and heavy equipment recovery throughout Eastern Europe during a nine-month deployment.

■ By Capt. Stephen I. DuCharme

The regionally aligned forces (RAF) initiative enables continental United States-based units to sharpen their short-notice, unit-level deployment task skills. RAF requires leaders to embrace mission command principles in order to operate in remote and dispersed environments.

On the heels of the RAF rotation of the 3rd Armored Brigade Combat Team, 4th Infantry Division, the 32nd Composite Truck Company (CTC) received orders to deploy to Eastern Europe as part of the first sustainment forces RAF rotation in support of U.S. Army Europe and Atlantic Resolve.

Atlantic Resolve's supported area includes seven European countries, from Estonia in the Baltics to Bulgaria in the Black Sea region; it includes a road network spanning 1,800 miles, which is equivalent to driving from New York City to Denver. During the nine-month deployment, the 32nd CTC's mission was to provide transportation and heavy recovery support throughout Eastern Europe.

Speed of War

In order to exercise speed of assembly and enable maneuver units to successfully train with NATO allies, sustainment capabilities have to be structured and agile.

The 32nd CTC's rotation to Europe began in March 2017, and it proved to be a challenge. The area to support was vast, and the company had to provide sustainment from multiple nodes while following European highway rules and regulations. The 32nd CTC executed more than 110 transportation movement release missions within the first four months of its deployment. Each transportation movement had its own unique challenges.

The 32nd CTC's experience revealed that future sustainment force rotations to Europe should focus on these four goals:

- ☐ Structuring the organization.
- ☐ Increasing shop stock fitness.
- ☐ Enhancing mission command capabilities.
- ☐ Completing European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) certification and hazardous materials (HAZMAT) training prior to deployment.

Organizational Structure

A CTC has four platoons: one heavy equipment transporter (HET) platoon, one medium tactical vehicle platoon, and two palletized load system (PLS) platoons. In preparation for the RAF deployment, the 32nd CTC developed a logistics common operational picture that allowed it to execute effective distribution operations from multiple support locations simultaneously.

In order to sustain logistics support and continuity from dispersed locations, the company chose to deploy its formation with modular platoons. Instead of deploying platoons with vehicles specified by the CTC's modified table of organization and equipment (MTOE), each platoon was cross-leveled with the same type and number of sustainment platforms.

The cross-leveling allowed for better crew predictability and 24-hour operations through squad cycles (mission, training, recovery), and platoon leaders could train their Soldiers on multiple platforms. Additionally, platoon modularization ensured each platoon maximized the use of equipment within each supported area.

The 32nd CTC is authorized a senior truckmaster and a truckmaster. These experienced noncommissioned officers assisted in coordinating, supervising, and controlling transportation operations and provided the operational planning and tracking needed to execute operations from separate locations.

The 32nd CTC leveraged its MTOE to split its operations section. By flattening communications, the truckmasters operating in separate locations received and processed battalion transportation movement releases concurrently and coordinated and issued directives to platoons more readily.

This ultimately enabled the company to provide prompt, sustained support to maneuver units and to operate from different countries and support nodes with minimal external assistance.

Shop Stock Fitness

A common goal for logistics units is to economize support by using the right type of sustainment platforms and to sustain those platforms with shop stock lists (SSLs) that are prebuilt using historical trends. One asset the 32nd CTC did not possess in its fleet was the M915 line-haul truck, so the burden of the ubiquitous line-haul transportation mission was placed instead on the company's M1075A1 PLSs.

Unfortunately, the PLS is not the preferred system to sustain long-haul transportation missions. The PLS platform is preferred for executing off-road sustainment operations to rapidly distribute supplies to the forward line of troops in rough-terrain environments. However, PLSs were used on European public roads to transport commodities thousands of miles within a matter of days.

The significant number of miles the PLSs had to traverse, coupled with the changing altitude, caused some unforeseen mechanical issues. The 32nd CTC had to remedy these issues in order to sustain line-haul operations with its authorized equipment.

During the onset of the deployment, PLS turbochargers and turbo tubes were quickly identified as high-consumption items. Air pressure rises with decreasing altitude, and increased pressure escalates the likelihood of blowing engine tubes.

Because the 32nd CTC deployed from Fort Carson, Colorado, where the altitude is higher and the air is thinner than it is in Europe, the PLS turbo tubes were not acclimated to the elevation. The turbo tubes became less reinforced, and the change of elevation caused them to rupture.

This also placed a significant amount of stress on the actual turbochargers as the increased frequency of ruptured tubes caused malfunctions, including over-boosting and bearing failures within the turbochargers.

HET trailer tires were also identified as high-consumption items. European public roads, especially in Poland, are very narrow and have many roundabouts. Both of these features increased the frequency of "curb checks," and HET trailer tires were frequently blown, particularly when the HETs were loaded with large equipment.

In accordance with Army Regulation 710-2, Supply Policy Below the National Level, if a unit does not have the consumption history to support adding critical items to its SSL, then the unit can stock those items through initial issue as long as they do not exceed 10 percent of the demand-supported lines on the approved SSL.

The 32nd CTC's internal maintenance section reacted to these maintenance concerns by adjusting its stockage selection and increasing SSL levels. By bolstering stockage levels with theater-tailored, consumption-based items, the 32nd CTC was able to minimize mechanical issues and increase SSL performance to better sustain equipment readiness.

drives prior to packing for deployment. Vehicles were assessed to ensure BFT and MTS mounting kits were intact and that all components were on hand. BFT and MTS mounting capability shortfalls were identified well in advance of deployment, and the appropriate mounting kits were ordered.

This preemptive step essentially allowed a plug-and-play scenario with MCSs and sustainment platforms and significantly helped the 32nd CTC to communicate tactically as soon as equipment hit ground in theater.

MTS tactical operations center kits were also deployed in a manner that permitted the company to operate multiple mission command nodes. This allowed the truckmasters operating in separate locations to monitor transportation movements more precisely. Ultimately, these actions enhanced the 32nd CTC's mission command capabilities and enabled the company to execute distribution support from multiple locations.

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Mission Command Capabilities

Developing the ability to operate in multiple locations simultaneously is challenging for a battalion, so it is even more difficult for a functional company. During the RAF rotation, logistics support areas in certain Eastern European locations were in the early stages of development.

The infrastructure did not support hard-wired communications, and establishing a means to communicate, collaborate, and facilitate functional teams was an essential task. Tactical communications were relied upon heavily.

Prior to deployment, the 32nd CTC focused on enhancing its mission command capabilities. Analysis was conducted on the quantity of mission command systems (MCSs) authorized by MTOE and the imminent dispersal of those assets between sustainment platforms and multiple support nodes. The Blue Force Tracking (BFT) system and Movement Tracking System (MTS) were tested to ensure they were fully operational and capable of running Joint Capabilities Release software.

In addition, European overlays were installed in all MCS hard

ADR and HAZMAT Certification

Sustainment forces frequently transport HAZMAT, such as bulk fuel, ammunition, and explosives across European countries in support of multinational training exercises. Military vehicles transporting HAZMAT in Europe require ADR certification. This certification includes the installation of a safety kit on both the prime mover and trailer.

Prior to the 32nd CTC's deployment, German maintenance personnel traveled to Fort Carson to help certify the 32nd CTC's vehicles. Mobile training teams conducted the required HAZMAT-11 and ADR driving courses for operators who would transport hazardous goods on European public roads. They also taught the required HAZMAT-12 and -15 certification courses for Soldiers who would certify shipping documents for HAZMAT movements on European public roads and railroads.

It is better to obtain these European certifications prior to arriving in theater. By completing these requirements prior to deployment, the 32nd CTC enhanced its freedom of movement and theater utility as soon as equipment arrived in Europe.

The CTC's RAF rotation was a truly challenging deployment in which Soldiers and leaders had the opportunity to think creatively and apply fundamental Army skills in an austere environment. The four considerations illustrated in this article do not represent every logistics challenge that rotational enablers in Europe will face. However, future sustainment forces that inject these considerations into the deployment planning process will be better postured for mission success when supporting Atlantic Resolve.

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